Frank L. O'Bannon
Governor

Gregory A. Wilson, M.D. State Health Commissioner



June 27, 2002

Mr. Christopher S. Overmyer Francesville Drainage Tile Corporation P. O. 368 Francesville, IN 47946-0368

Dear Mr. Overmyer:

Re: Gravelless Pipe Alternative Technology
Ten (10) inch Gravelless Pipe
with Carriff GL Non-woven Polypropylene Fabric

The use of Francesville Drain Tile GLP Gravelless Pipe as a gravelless system is hereby approved by the Indiana State Department of Health (department) subject to the conditions listed below.

The gravelless system for which you submitted information is a subsurface absorption system, which provides an alternative to the use of gravel in the absorption field trenches. This is accomplished by the installation of ten inch inside diameter corrugated polyethylene plastic pipe in a narrow trench, which is backfilled with soil, rather than with gravel and then soil. This piping is provided with two rows of drain holes, 3/8 inch in diameter, located 120 degrees off the top centerline. The holes are staggered with one hole per corrugation. The piping is wrapped with Cariff GL Non-woven polypropylene geotextile fabric.

As stated in your literature, this gravelless system is designed to be installed in any application where a conventional gravel-filled system is allowed. It is not intended for use in areas where conventional gravity flow systems would be prohibited due to poor permeability, high groundwater, or insufficient depth to bedrock or other limitations for conventional systems.

Approval of the use of Francesville Drain Tile GLP Gravelless Pipe is subject to the following conditions:

- 1. The Francesville Drain Tile GLP Gravelless Pipe is to be used only in gravity flow subsurface trench and gravity flow alternating subsurface trench soil absorption field systems.
- 2. The Francesville Drain Tile GLP Gravelless Pipe cannot be used with or in lieu of flood dose or pressure distribution subsurface trench soil absorption field systems.
- 3. The pipe used for gravelless pipe meet the standards of ASTM F667 and AASHTO M-252.
- 4. The fabric sock used with the gravelless pipe must meet Francesville Drain Tile Corporation's ASTM standards for geotextile nonwoven polypropylene fabric as submitted for approval by the department.

- 5. A permit for each individual system must be obtained from the health department having jurisdiction prior to the construction of the system.
- 6. The absorption field size must be computed using the number of bedrooms and bedroom equivalents and the soil loading rates for subsurface absorption systems set by Indiana State Department of Health Rule 410 IAC 6-8.1. At least one lineal foot of ten-inch diameter gravelless piping must be required for each lineal foot of three-foot wide gravel-filled trench that would be required.
- 7. Each Francesville Drain Tile GLP gravelless pipe soil absorption field trench must be individually connected to the distribution box by at least five (5) feet of gravity effluent sewer four (4) inch diameter pipe.
- 8. The distal ends of the Francesville Drain Tile GLP gravelless pipe soil absorption field trenches may not be manifolded together.
- 9. The Francesville Drain Tile GLP alignment stripe must be installed at the top center of the pipe.
- 10. The Francesville Drain Tile GLP gravelless pipe must be level throughout its length.
- 11. The trench excavation for the ten-inch pipe must be at least twenty (20) inches in width.
- 12. The gravelless pipe must be covered with a minimum of twelve (12) inches of soil material.
- 13. The use of gravelless systems shall meet all other applicable department standards for residential and commercial subsurface soil absorption systems.
- 14. All determinations for site suitability for subsurface soil absorption systems shall be made using procedures and criteria established by the department.

If you have any questions regarding this approval, please contact, Alan Dunn, Chris Bourke, David Ortel, or Ed Miller of my staff at the above address, by telephone at 317-233-7177, or by e-mail (adunn@isdh.state.in.us, cbourke@isdh.state.in.us, or dortel@isdh.state.in.us, Emiller@isdh.state.in.us, respectively).

Sincerely,

HOWARD W. CUNDIFF, P. E., DIRECTOR

CONSUMER PROTECTION

DOrtel/do

EMiller/CBourke:em/cb

cc: Local Health Departments

Onsite staff